Remarks:

Reconsideration of the application is requested.

Claims 1-11 and 16-18 remain in the application. Claim 8 has been amended.

In item 2 on page 2 of the above-identified Office action, claims 1-4, 7, and 16-18 have been rejected as being obvious over Simmons et al. (4,714,949) in view of Hatanaka (5,587,598) and Emori (EP 0 115 143) under 35 U.S.C. § 103. Applicant respectfully traverses.

Claim 1 defines a method for producing an electrical connection between integrated circuits.

Contrary to the Examiner's opinion, Simmons only describes a single integrated circuit, i.e. not a configuration consisting of several integrated circuits and especially not a method for producing an electrical connection between a first integrated circuit and a second integrated circuit (Simmons pertains to protecting an integrated circuit from damages caused by discharges during the production thereof, see col. 3, lines 30 and 38 in Simmons).

- The integrated circuit described in Simmons contains only a single path and it can thus not be assumed that:

- the integrated circuit described in Simmons has pads (terminals) for connecting the integrated circuits with housing pins, as well as pads (signal terminals) for connecting the integrated circuit with another integrated circuit,

- an electrical connection is present between a terminal and a signal terminal, if a terminal as well as a signal terminal were present, and

- such a connection would have to be opened after a terminal of this integrated circuit is connected with the terminal of the housing containing the integrated circuit (in Simmons the opening of the connections to be opened takes place immediately after the production of the integrated circuit, i.e. before the bonding, see col. 3, lines 24 to 36 and Fig. 4 in Simmons).

19 Hatanaka also only describes a single integrated circuit, i.e. not a configuration consisting of several integrated circuits, and especially not a method for producing an electrical connection between a first integrated circuit and a second integrated circuit (Hatanaka pertains to protecting an integrated circuit from damages caused by discharge during the

production thereof, more precisely during the wafer process, see col. 1, lines 44 to 59 in Hatanaka).

- Hatanaka does not contain information that:

  - the integrated circuit described therein has pads (terminals) for connecting the integrated circuit with housing pins, as well as pads (signal terminals) for connecting the integrated circuit with another integrated circuit,

  - an electrical connection is present between a terminal and a signal terminal, if a terminal as well as a signal terminal were present and

  - such a connection would be opened, after a terminal of this integrated circuit is connected with a terminal of the housing containing the integrated circuit (in Hatanaka the opening of the connections to be opened takes place immediately after the production of the integrated circuit, i.e. before the bonding, see col. 4, lines 12 and 13 in Hatanaka).

Furthermore - contrary to the Examiner's opinion - it could not be obvious to integrate the ESD device known from Hatanaka into the integrated circuit known from Simmons. In fact

exactly the opposite would probably be true: the ESD devices known from Hatanaka cannot be provided in the integrated circuit described in Simmons (see col. 1, lines 46 to 55 in Simmons).

Thus - contrary to the Examiner's opinion - by combining the features known from Simmons and Hatanaka, one does not get to the method definede by claim 1, except for the last feature of claim 1 (subsequent to connecting the terminal… energy pulse).

The features of claim 1, which are not known from Simmons and Hatanaka, are also not known from Emori. Especially the last feature of claim 1 (subsequent to connecting the terminal … energy pulse) is not known from Emori. Emori describes the deactivation of an ESD device that is formed by a diode, and Emori does not describe severing a conductive connection between a terminal and a signal terminal. Furthermore, assuming that there are connections between the terminal and the signal terminal in the sole integrated circuit described in Simmons, these connections are destroyed immediately after the production of the integrated circuit, more specifically prior to the bonding (see col. 3, lines 24 to 36 and Fig. 4 in Simmons) so that it is no longer possible to destroy these connections at the point in time claimed in the last feature of claim 1.

In item 3 on page 4 of the above-identified Office action, claims 5 and 6 have been rejected as being obvious over Simmons et al. (4,714,949) in view of Hatanaka (5,587,598) and Emori (EP 0 115 143) and further in view of Kuriyama (5,682,057) under 35 U.S.C. § 103. Applicant respectfully traverses.

Claims 5 and 6 are not obvious for the reasons specified above in regard to claim 1.

In item 4 on page 5 of the above-identified Office action, claims 8-11 have been rejected as being obvious over Simmons et al. (4,714,949) in view of Hatanaka (5,587,598) and Emori (EP 0 115 143) and further in view of Bozso (5,760,478) under 35 U.S.C. § 103. Applicant respectfully traverses.

Claim 8 defines a method for producing an electrical connection between integrated circuits.

Simmons et al. do not teach electrically joining a terminal pad of a first integrated circuit to a terminal pad of a second integrated circuit. Therefore even if the cited art were combined, the claimed invention could not have been obtained.

Claim 8 has been amended to even further distinguish the invention from the prior art. Claim 8 now includes a step of: providing a protective structure acting as a switch that becomes conductive when there is an overvoltage to dissipate an electrostatic discharge to a line for a supply voltage. Support for the change can be found by referring to the specification at page 2, lines 8-13. Simmons et al. do not teach a step of providing such a protective structure.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 or 8. Claims 1 and 8 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1 or 8, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-11 and 16-18 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, he is respectfully requested to telephone counsel so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section

1.136(a) in the amount of $110.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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August 19, 2002

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GR 97 P 2681

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Albrecht Mayer

Applic. No. : 09/164,123

Filed : September 30, 1998

Title : Method for Assembling Integrated Circuits With Protection Of The Circuits Against Electrostatic Discharge, And Arragement Of Integrated Circuits With Protection Against Electrostatic Discharge

Examiner : Julio J. Maldonado

Group Art Unit : 2823

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claim 8 (twice-amended). A method for producing an electrical connection between integrated circuits, which comprises:

providing a first integrated circuit having a surface;

disposing first and second terminal pads on the surface of the first integrated circuit;

forming an electrically conductive connection between the first and second terminal pads of the first integrated circuit;

providing a second integrated circuit having a surface;

disposing first and second terminal pads on the surface of the second integrated circuit;

[providing a protective structure that becomes conductive to dissipate electrostatic discharges;]

providing a protective structure acting as a switch that becomes conductive when there is an overvoltage to dissipate an electrostatic discharge to a line for a supply voltage;

electrically coupling at least the first terminal pad of the second integrated circuit to the protective structure;

disposing the surfaces of the first and second integrated circuits longitudinally adjacent one another so that the first and second terminal pads of the second integrated circuit are not covered by the first integrated circuit;

electrically joining at least one of the first and second terminal pads of the first integrated circuit to one of the first and second terminal pads of the second integrated circuit;

severing the electrically conductive connection using an energy pulse.